



The 5th International Conference on Agriculture and Life Sciences of Albania 2030

3 – 5 November 2025
Agricultural University of Tirana, Kodër-Kamëz, Tirana

PROCEEDINGS



**The 5th International Conference
on Agriculture and Life Sciences of Albania 2030**

Tirana, 3-5 November 2025

PROCEEDINGS

PROCEEDINGS OF INTERNATIONAL CONFERENCE ON AGRICULTURE AND LIFE SCIENCES OF ALBANIA 2030 (ICOALS 5)

© Agricultural University of Tirana

All rights reserved. No part of this Proceedings book might be reproduced by any means - graphic, electronic or mechanical - without prior written permission of the Authors, according to the copyright.

Organised by:



Conference partners:



CONFERENCE CHAIR

Dr. **Fatbardh SALLAKU**, *Rector of Agricultural University of Tirana, Albania*

Dr. **Hubert HASENAUER**, *BOKU-University of Natural Resources & Life Sciences, Vienna, Austria*

CONFERENCE CO-CHAIR

Prof. Dr. **Erinda LIKA**, *Vice Rector of Science and Projects, Agricultural University of Tirana, Albania*

ORGANIZING COMMITTEE

Prof. Asoc. **Romina KOTO**, *Vice Rector, Agricultural University of Tirana, Albania*

Prof. Dr. **Ilir KAPAJ**, *Vice Rector for Teaching, Agricultural University of Tirana, Albania*

Prof. Dr. **Endrit KULLAJ**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Seit SHALLARI**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Remzi KECO**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Rezart POSTOLI**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Elvin TOROMANI**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Kapllan SULAJ**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Daniel MULLER**, *LAMO, Germany*

Prof. Asoc. **Valbona HOBDAI**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Anila HODA**, *Albanian Academy of Sciences, Albania*

Prof. Dr. **Gjokë ULDEDAJ**, *Rector of Qiriazi University, Albania*

Prof. Dr. **Ferdi BRAHUSHI**, *Agricultural University of Tirana, Albania*

Prof. Asoc. **Fatmir GURI**, *Agricultural University of Tirana, Albania*

Prof. Asoc. **Shpresim DOMI**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Evan RROÇO**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Etleva DELIA**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Ardian MACI**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Vath TABAKU**, *Agricultural University of Tirana, Albania*

Dr. **Alketa GREPCKA**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Etleva DASHI**, *Agricultural University of Tirana, Albania*

Prof. Asoc. **Dritan LACI**, *Agricultural University of Tirana, Albania*

SCIENTIFIC COMMITTEE

Prof. Dr. **Erinda LIKA**, *Vice Rector for Science and Projects*, AUT

Prof. Dr. **Ilir KAPAJ**, *Vice-Rector*, AUT

Prof. Asoc. **Romina KOTO**, *Vice-Rector*, AUT

Prof. Dr. **Endrit KULLAJ**, *Agricultural University of Tirana*, Albania

Prof. Dr. **Muhammad H. ZAMAN**, *Boston University*, USA

Prof. Dr. **Daniel MULLER**, *LAMO*, Germany

Univ. Prof. **Hans-Peter KAUL**, *BOKU-University*, Austria

Prof. Dr. **Joan B. ROSE**, *Michigan State University*, USA

Prof. Dr. **Anila HODA**, *Albanian Academy of Sciences*, Albania

Prof. **Niko QAFOKU**, *Pacific Northwest National Laboratory*, USA

Univ. Prof. Dr. **Matthias SCHREINER**, *BOKU-University*, Austria

Prof. **Sokrat SINAJ**, *Agroscope, Field Crop, Plant Nutrition*, Bern, Switzerland

Dr. **Kurt RICHTER**, *Michigan State University*, USA

Prof. **Giuseppe MAIORANO**, *Università degli Studi del Molise*, Italy

Prof. **Nazim GRUDA**, *Academy of Science*, Albania

Prof. Dr. **Seit SHALLARI**, *Agricultural University of Tirana*, Albania

Univ. Prof. Dr. **Hans SÖLKNER**, *BOKU-University*, Austria

Dr. **Stephan FUCHS**, *Karlsruhe Institute of Technology (KIT)*, Germany

Prof. **Thomas ERTL**, *BOKU-University of Natural Resources & Life Sciences*, Vienna, Austria

Prof. Dr. **Pandi ZDRULI**, *Mediterranean Agronomic Institute of Bari*, Italy

Dr. **Ndue KANARI**, *University of Lorraine*, Nancy, France

Dr. **Roza ALLABASHI**, *BOKU-University of Natural Resources & Life Sciences*, Vienna, Austria

Associate Professor. **Luuk FLESKENS**, *Wageningen University and Research*, Netherlands

Prof. Dr. **Lumturi PAPA**, *Agricultural University of Tirana*, Albania

Prof. Asoc. **Anila KOPALI**, *Agricultural University of Tirana*, Albania

Prof. Dr. **Vjollca IBRO**, *Agricultural University of Tirana*, Albania

Dr. **Pandeli PASKO**, *Mediterranean Agronomic Institute of Bari*, Italy

Dr. **Daniel MÜLLER**, *Humboldt University*, Berlin, Germany

Prof. Dr. **Myqerem TAJAJ**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Aida BANI**, *Agricultural University of Tirana, Albania*

Prof. Dr. **Etleva DASHI**, *Agricultural University of Tirana, Albania*

Prof. Ass. **David RANUCCI**, *University of Perugia, Italy*

Dr. **Nikola PUVACA**, *Faculty of Agriculture, Novi Sad University, Serbia*

Prof. Dr. **Spase SHUMKA**, *Agricultural University of Tirana, Albania*

Dr. **Zamir LIBOHOVA**, *USDA-NRCS, USA*

Dr. **Ida KRUTI**, *Vice-Rector, Qiriazi University, Albania*

Prof. Dr. **Halit XHAFI**, *Dean of the Faculty of Economics, Qiriazi University, Albania*

Prof. As. Dr. **Enida BOZHEKU**, *Dean of the Faculty of Law, Qiriazi University, Albania*

Prof. Dr. **Ylli ZHURDA**, *Head of the Department, Qiriazi University, Albania*

Prof. Dr. **Fadil MILLAKU**, *University "Haxhi Zeka", Peja, Kosovo*

Dr. **Albona SHALA**, *University "Haxhi Zeka", Peja, Kosovo*

Prof. Dr. **Ariola BACU**, *Tirana University, Albania*

SECRETARY OF THE CONFERENCE

Alketa GREPCKA

Edlira SADIKU

Sidita DUSHAJ

Alma KARASANI

Klaudia SARACI

AGRICULTURAL EXPORTS AND DIGITALIZATION AS EXIT PATH: A QUICK LITERATURE REVIEW

Bora QEVANI¹, Ekaterina ARABSKA², Dorjana KOLAJ³, Rezear KOLAJ⁴

¹ Department of Information Technology, Qiriazi University College, Tirana, Albania

² Department of Regional Development, Agribusiness and Tourism, University of Agribusiness and Rural Development, Plovdiv, Bulgaria

³ Department of Management, Luarasi University, Tirana, Albania

⁴ Department of Economics and Rural Development Policies, Agricultural University of Tirana, Albania

* Corresponding author: boraqevani15@gmail.com

ABSTRACT

The sustainability and growth of agricultural exports is under an increasing influence of structural market dynamics, innovation—new technology, and the trend towards efficient—agile institutions. These catalytic developments through digitalization and open innovation can be seen as new paths that overcome barriers, emphasizing in particular the importance of organized agricultural production and standards. While the competitiveness of agricultural exports represents a major responsibility, the scholar's scientific interest in it is the spark that illuminates the spectrum within the agricultural landscape and the spirit of the farm. Through a quick literature review, factual expertise and textual analysis, the paper provides a report on the current potential of digital innovations and their impact on increasing access to markets, new technologies and the performance of companies and institutions and the competitiveness of agricultural exports, underlining the impact of quality. Future assessments could contribute to investigating the coherence of statistical indicators with export policies and growth strategies, given the increasing differentiated impact of innovative tools—practices on exports generally and possible implications to agricultural exports.

Keywords: *Agricultural exports, quality, competitiveness, digital innovation*

INTRODUCTION

Increase of exports and competitiveness are strategic for developing countries and small economies. The discussion of their growth and sustainability has currently been re—dimensioned in the light of new opportunities that offer digital innovations and platforms, and on the other hand from dynamics in financial market theater (eg crypto currencies), which have raised questions about the real size of world production (and eg higher tariffs), global stock markets and top agricultural exporters, such as USA, Netherlands, Germany, France, Brazil and China [2], may need increased attention to the consequences in small markets, that as is known often do not benefit from the effects of the game. Small developing economies are usually determined by incomplete—fragmented markets that serve a more diversified offer (including low—income consumers), and this often goes along with the form of production organization, efficiency, and farm governance, and consequently non—specified standards, etc. Moreover, while growth rates (per capita) everywhere do not leave room for enthusiasm, stagnation of consumption and lack of increased production rates in export sectors can be important barriers that hinder developmental intra—initiatives to increase the quality and standards of agricultural production and export performance. Discussion on standards as determinants of agri—exports is of research interest and promotes views, especially in the light of innovation.

The problem of their growth in the case of Albania may justify a wide specter of external factors (or differentiated interaction, EU integration, etc.), and given the transformative dynamics of agricultural exports over the last 20 years in the EU (eg, Bulgaria, Poland, Romania) seems to have been relativized the impact of internal determinants, such

as standards, while frequent analyzes may be necessary. The issue of quality and standards of agricultural exports is a task that can only develop at high levels of government as it relates to strategic dimensions, such as (1) structural regulations in markets (eg economic and social returns); (2) the innovation and new technology (without which agriculture cannot compete); and (3) the institutions, including the organization of agricultural production (especially family farm) and the purpose of governance (which coordinates new processes, in new ways), also seeking the ability to analyze the additional measures of other specific policies {eg country–origin of agri–fertilizer imports (composition of inputs and impact on chemical quality), legislation (categories of legal norms, obligatory or not) EU Acquis or directives} and optimization of interventions by context (economic, social, technological) regional, etc.

The competitiveness of agricultural exports globally represents a country’s strategic achievement, where the class of professionalism and the main potential (organizational, financial) are usually embodied.

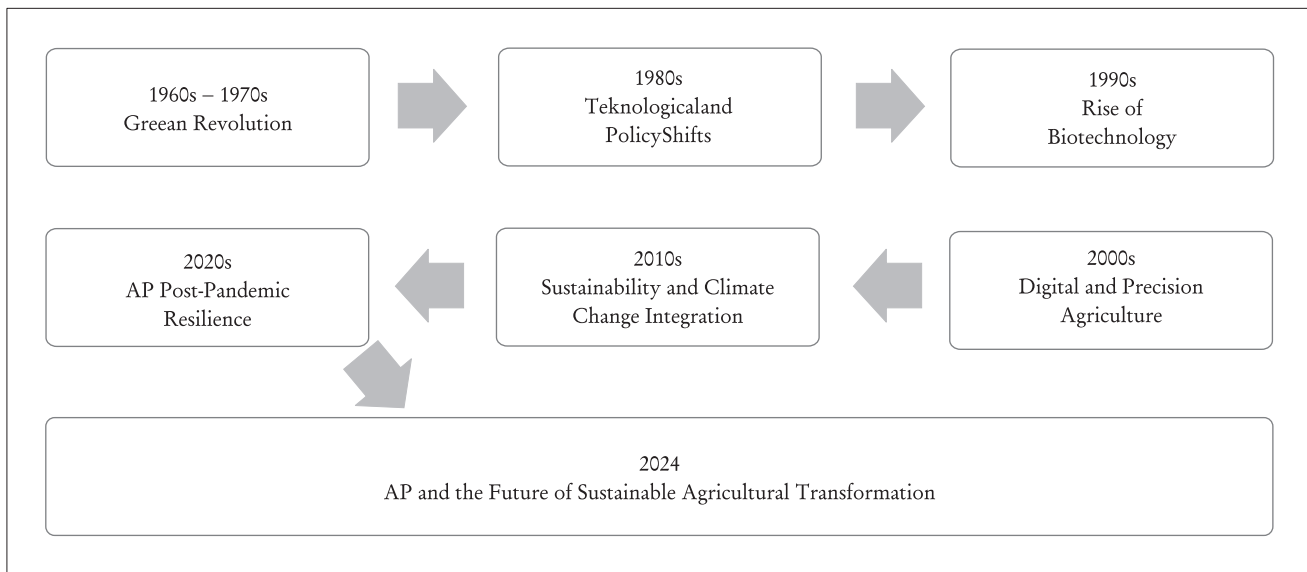
Everywhere in international markets – including developing countries, agricultural exports (eg, countries in Southeastern Europe, Central and Eastern Asia, Africa, etc.) are subject to standard and quality policies (including food safety, product uniformity, appearance and packaging, etc.) and producers are trained about practices. Countries classified according to organization level of food markets and the composition of export production. The discussion on their growth is based on the importance of required standards, quality and innovation, and while governments everywhere have increased accountability through increased access to technological and innovative factors, organizational ones at the level of the producing farm and agile institutions that enable the promotion of profits in the agribusiness game, it is emphasized that the debate on farm efficiency is mainly meaningful for farmer returns rather than international prices (slightly volatile, and explainable). Exploring the impact of the above factors on increasing the standards and quality of agricultural products and the competitiveness of exports is important in many ways, and includes the organization of agricultural production (income, costs) and the value chain, etc., creating more clarity on the public policy instruments necessary and the good–governance and also encouraging future more in–depth studies on the impact of the main factors, and filling the theoretical gap in the research field.

MATERIALS AND METHODS

The paper is based on a broad exploration of literature, considering the general developments of innovation and its multiple implications, such as economic, social, technological, organizational, etc., and the contextual specifications useful to provide the database, and their review, and the framework of the report’s arguments. The literature review is combined with factual observations in the field of agricultural producers, focusing on discussions with key agri–exporters and researchers from the economic and agronomic fields, and textual analysis, providing the necessary tools for the analysis of the factors taken into consideration.

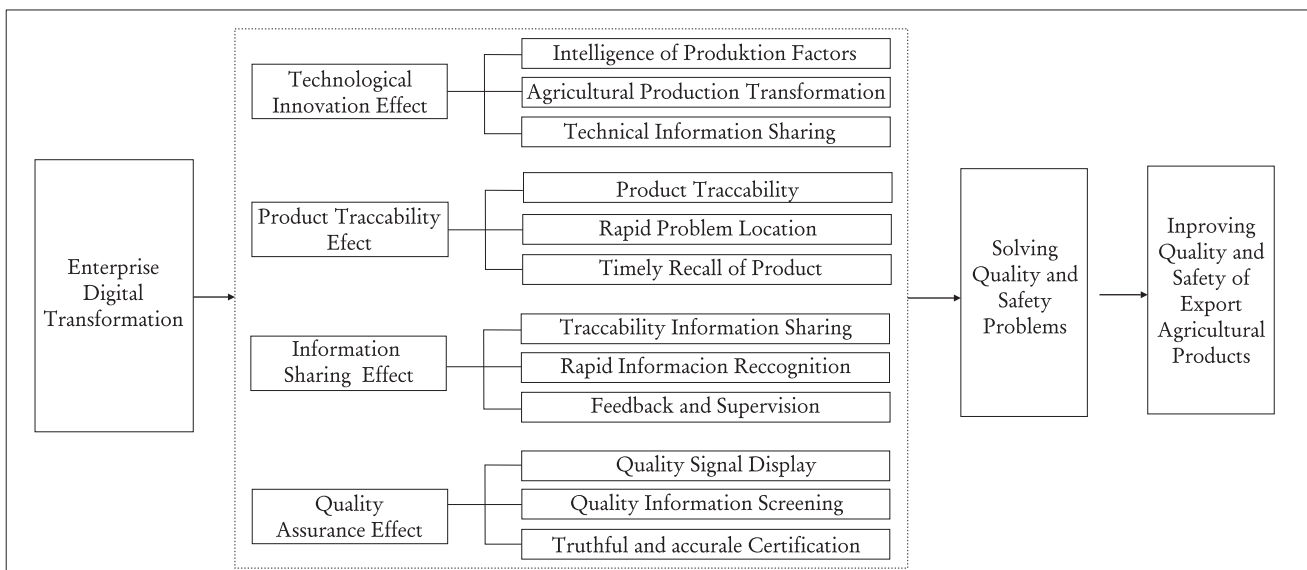
RESULTS AND DISCUSSION

Crossing the levels of R&D (formal from researchers, innovators and informal from farmers, etc), agricultural production has expanded in terms of volume and innovative sophistication, emphasizing the importance of creating an innovation routine that changes daily, and works based on scientific examinations in agricultural production units for the formulation of public policies, the prosperity of farmers and transformative developments within the agricultural landscape [1]. While trends towards innovation and its adaptability vary widely across regions, governance, production units, value chains, etc., there is a particularly high level of its applicability in both: (1) agricultural commodity trade and (2) commercial agricultural production systems, increasing convergence between groups of traders and farmers through improved quality of agricultural products and consumer convenience. This includes products with high added value; achieved through sustainability of production processes and long–term productivity, and described with qualifications, in terms such as ‘modern’ or ‘quick’ revolutions that characterize the extraordinary progress over the last 2 decades in Asia, Latin America and Africa and the structural–organizational innovation of production units in the developing world [6, 7]. Research (figure 1) highlights the impact of innovation levels on long–term agricultural productivity growth in developing countries [3].

Figure 1: The impact of technological innovations on agricultural productivity.

Source: [3].

Upgraded productivity quantifies new quality productive forces, generating the source to promote progress and increase producers' incomes and knowledge, regulate markets, and raise the quality and standards of national agricultural exports. The digitalized socio-economic environment and industrialization factors can transform entities (figure 2), and multiply the effects in the main directions, such as (1) innovation-technology, through the intelligent use of production factors in agriculture; (2) traceability for food security solutions; (3) information dissemination and management efficiency in the value chain, etc; and (4) quality assurance and certification, ensuring the standards and competitiveness of agricultural exports [4].

Figure 2: The mechanism of the digital transformation of enterprises and the quality and safety of exported agricultural products.

Source: [4].

We emphasize that while product prices in export industries are known (and costs are calculable), the primary criterion is the achievement of quality and standards. Through the improved performance of exports, local markets everywhere during the last 30 years have also rapidly transformed (eg Egypt, Vietnam, Philippines, etc.), being configured according

to international quality standards. Regardless of price, no one buys without quality assurance and required standards, and this is particularly essential for markets in the EU. Within the vicious circle of new climatic conditions, contextual development conditions (based on the argument that per capita income usually correlates with quality of products) and food waste in the value chain, etc., it is reasonable to have a dedicated determination towards the quality of production as a prerequisite for increasing income within the agricultural ecosystem and the competitiveness of national agricultural exports. The task of improving them encompasses key development dimensions, such as (1) the economy, including industrial structuring and market regulation; (2) technology, with an accent on innovations (engineering, social, etc.); and (3) institutions, with a focus on farm and macro-level governance. Digital innovations have expanded the knowledge and practices of producers, creating potential for trade that can improve economic growth [5], the quality and required standards of agri-exports.

BIBLIOGRAPHY

- [1] Biggs, S.D., & Clay, E.J. (1981). Sources of innovation in agricultural technology. *World development*, 9(4), 321–336.
- [2] Biggest agricultural exporter countries in the world–list. ENVPK, 2025. Available: <https://www.envpk.com/biggest-agricultural-exporter-countries-in-the-world-list/>
- [3] Huang, W., & Wang, X. (2024). The impact of technological innovations on agricultural productivity and environmental sustainability in China. *Sustainability*, 16(19), 8480.
- [4] Liu, Y., Dong, Y., & Qian, W. (2024). The impact of digital transformation on the quality and safety level of agricultural exports: evidence from Chinese listed companies. *Humanities and social sciences communications*, 11(1), 1–19.
- [5] Meijers, H. (2014). Does the internet generate economic growth, international trade, or both? *International economics and economic policy*, 11(1), 137–163.
- [6] Reardon, T., Echeverria, R., Berdegue, J., Minten, B., Liverpool-Tasic, S., Tschirley, D., & Zilberman, D. (2019). Rapid transformation of food systems in developing regions: Highlighting the role of agricultural research & innovations. *Agricultural systems*, 172, 47–59.
- [7] Swinnen, J., & Kuijpers, R. (2019). Value chain innovations for technology transfer in developing and emerging economies: Conceptual issues, typology, and policy implications. *Food policy*, 83, 298–309.

CIP Katalogimi në botim BK Tiranë

Universiteti Bujqësor i Tiranës

The 5th International Conference on Agriculture and Life
Sciences of Albania 2030 : Tirana, 3-5 November 2025 :
proceedings / Agricultural University of Tirana. - Tiranë :
Gent Grafik, 2026.

836f ; .21 x 29.7 cm.

ISBN 9789928395788

1.Bujqësia 2.Bioteknologjia bujqësore 3.Konferenca
606 :63 (062)



© Agricultural University of Tirana

All rights reserved. No part of this Proceedings book might be reproduced by any means - graphic, electronic or mechanical - without prior written permission of the Authors, according to the copyright.

